

NOTES ON *MUSCINA PASCUORUM* MEIGEN DURING
1923.

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The sudden occurrence, and in great numbers, of *Muscina pascuorum* in North America in 1922, was recorded by the writer in *Psyche*, Vol. 30, p. 1-5, Feb., 1923.

Early in 1923 very few specimens were seen. Mr. A. P. Morse took a specimen Jan. 18 at Wellesley, Mass. The most interesting recorded is that from Bridgeton, N. J., where Mr. F. M. Schott captured a specimen under bark, Feb. 11. This, so far, is the most southern record for the species. Specimens were also taken under bark, at Annandale, N. J. March 7, by parties scouting for Gypsy Moth eggs. The locality is about 20 miles west of Bound Brook, where it was previously recorded. A specimen was taken in a window at Brookline, Mass., March 3. Having stated to Mr. F. W. Walker that it would be interesting to see how the fly had stood the winter, Mr. Walker visited the locality where they were so abundant, and in a letter says:—"I am sending a box of flies taken April 10, 1923, at Asbury Grove, Hamilton, Mass., on the same skylight that I collected from Nov. 9, 1922. A few scattering ones were taken on other windows." The box contained 125 *M. pascuorum*, 93 *Pollenia rudis*, 7 *Phormia regina* and 6 *Muscina assimilis*.

None were observed during the late spring and summer, but early in September, Mr. L. W. Swett, brought me a number of flies that had accumulated in the globe of an arc light at the Glen House, at the foot of Mt. Washington, N. H. Among these was one *M. pascuorum* the most northern record for New England. A few specimens were received from Attleboro, Mass., Oct. 14 and Worcester, Nov. 2. Two were collected on windows at Brookline, Oct. 28 and Nov. 4 and one on a window in Boston Dec. 3. Mr. Walker informs me that apparently the fly was not seen at Asbury Grove this fall.

The scarcity of this fly during 1923 in comparison with its abundance in 1922 is undoubtedly due to the very dry weather during the late summer and fall. Owing to the drouth there was comparatively little fungi. As this species is said, by European authors, to frequent *Amanita citrina*, the paucity of fungi during the late summer and early autumn would, also, probably account for the scarcity of the fly. It seems an interesting problem;— if the hibernating females lay eggs in the spring and the larvæ live on fungi, on what does the female lay her eggs, when there are practically no fungi in the early spring?

I hope, during the coming season if possible, to make some experiments relative to the breeding habits of this fly and information regarding its further distribution will be greatly appreciated.